North American Drought Monitor – May 2007

CANADA: Conditions improved in many areas of the country as a result of the cool, wet month. As a result, drought in the southern Prairies was significantly reduced. Significant precipitation fell in portions of northwestern Ontario resulting in improvements in that region as well. At the same time, some regions of the country saw conditions deteriorate due to below average precipitation. These include the southern interior of British Columbia, a portion of southern Ontario, and parts of Prince Edward Island and Nova Scotia.

British Columbia (B.C.): Above normal spring runoff continued in most river basins through out the province as warmer temperatures began to melt the mountain snow packs. This resulted in a large portion of the province being placed under flood advisories. Flood Warnings are in effect for the: Upper Fraser River, Skeena River, and Nass River. A Flood Watch was issued for Bulkley River. High Streamflow Advisories were issued for the Slocan River, North Thompson River, and Lower Fraser River. In contrast, parts of the southern interior of BC have received below average precipitation during the winter and much below normal during the early spring. The Kamloops-Kelowna area received slightly over 30mm and 55% of normal precipitation over the last 2 months, and a Standardized Precipitation Index value of greater than -2.00. Dry land agricultural production will be affected if dry conditions continue in this region.

Alberta: Drought conditions have improved greatly over the last couple of months as the majority of Alberta has received well-above normal precipitation. The area in the south west, previously identified as a D0, has received well-above normal precipitation over the last month. While the majority of AB has excessive soil moisture and standing water, conditions to the north east, outside the agricultural area, remain dry and thus have been classified as a D0. This region received 35mm of precipitation (60% of normal) during the last 2 months.

Saskatchewan: Cool, wet conditions prevailed throughout much of the province, hindering seeding. The northeast part of the province is experiencing severe excess moisture impacts, and as a result, a High Stream Flow Advisory has been issued for the Red Deer River and many small streams in the Porcupine Plain area. The area around Swift Current has been labeled a D0 as a result of below average precipitation over the last few months, as well as a dryer than normal winter, although there are no real drought concerns at this point.

Manitoba: Conditions throughout Manitoba have improved greatly over the last couple of months due to cool, wet conditions which have brought well-above normal precipitation. As a result, there are no drought concerns at this time for the province.

Ontario: Northwestern Ontario has improved slightly over the last couple of months as the region has received normal to above normal precipitation, with isolated areas getting well above normal precipitation. However, the Thunder Bay area remains very dry where growing season precipitation has ranged from 20-65% of normal since September

2006. The Ontario Ministry of Natural Resources has classified the watersheds of Dryden, Fort Frances and Thunder Bay with a confirmed low water flow condition. In the area, the level of Lake Superior is near record low of 1926 for the beginning of June. It is forecast to set a new record September and October monthly low unless it receives well above average precipitation. Southern Ontario has been identified as a D0 drought condition due to below average precipitation over the last two months; although no real concerns are evident at this time.

Quebec: There are no concerns for drought at this time in Quebec as winter and spring precipitation has been above-average and stream flow levels are greater than normal for this time of year.

Atlantic Canada
A portion of PEI and the majority of Nova Scotia have been classified as a D0 condition due to below-average precipitation since September 2006. However, no real concerns exist at this time.

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Natural Resources Canada – Canadian Forest Service
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Saskatchewan Watershed Authority

UNITED STATES: Wet weather across the central third of the Nation contrasted sharply with drier-than-normal conditions in the eastern and western thirds. Record or near-record May wetness was observed at several locations from Texas to the Dakotas, with Texas, New Mexico, North Dakota, and South Dakota all much wetter-than-normal for the month. The rains alleviated drought conditions in the Plains, Upper Midwest, and western Great Lake. A stationary front developed in the southern Plains on Thursday evening (May 24), causing locally heavy downpours (3 to 5 inches). There were also reports of wind damage and large hail.

The generally wet weather in the western Corn Belt differed with below-normal rainfall in most Midwestern areas from the Mississippi Valley eastward. Although monthly rainfall totals of 1 inch or less in parts of the Ohio Valley represented near-record short-term dryness, stress on pastures and summer crops only gradually increased due to generally adequate subsoil moisture reserves.

Farther south, however, drought intensified in most areas from the Delta to the southern Atlantic Coast. The Southeast region had its 3rd driest May with Georgia reporting the driest May on record. As a result, D3 drought expanded from northern Alabama northeastward into central and eastern Tennessee, eastward into Georgia, and southwestward into central Mississippi. Most of Georgia is now in a D2 or D3 classification The Southeastern drought exacerbated wildfire activity, which continued to be focused across Florida and Georgia. Late-month showers provided much-needed moisture across southern Florida but largely bypassed the remainder of the Southeast. More significant rain, associated with the passage of Tropical Storm Barry, fell across the southern Atlantic region in early June.

Elsewhere, New Mexico experienced wet weather, but warm, mostly dry conditions continued across the remainder of the West. Due to largely disappointing cold-season snowfall and unusual spring warmth, much of the West continued to brace for below-normal summer runoff. In addition, May reservoir storage was already below-average for this time of year in Arizona, Montana, New Mexico, Oregon, Utah, and Wyoming

MEXICO: May was hotter than normal with an average temperature of 24.2 ºC, while the normal temperature is 23.5 ºC. Statistically, May of 2007 was the third hottest month from 1971-2006 after 1998 and 2005.

At the national level, precipitation during May was 38.8mm only 3% below the climatology average of 40.2 mm. The National Meteorological Service (SMN) placed May of 2007 as the thirty seventh most humid since 1941.

Three cold fronts produced rainfalls from strong to intense over the States of Coahuila, Tamaulipas and San Luis Potosí. By the end of the month, tropical storms “Alvin” and “Barbara” formed in the Pacific, with the latter causing heavy rainfall over Chiapas, Oaxaca and Tabasco and some areas of Yucatán on May 30 and 31.

Maximum average temperatures showed that May had a mean of 32.2ºC (89.96ºF), (0.9 ºC above normal). Average maximum temperatures above normal extended over the northwest of Sonora, the States of the Sierra Madre Oriental mountain chain affecting the northeast of Chihuahua, Sinaloa, and a portion of the western side of Durango, Nayarit, Guanajuato, Michoacan, Guerrero, Oaxaca and Chiapas.

The previous information matches the report from the Forestry Official Agency of Mexico CONAFOR, which indicates that the most affected states by forest fires in May were Chihuahua, Guerrero, Michoacán, Oaxaca and Chiapas.

During the last days of May, the CONAGUA reported that water availability for irritation and municipal use was still descending, with the main descents reported in the dams located over the Northwest (Sonora, Sinaloa, Nayarit, Chihuahua and Durango) and the central region (Guanajuato, Querétaro, Aguascalientes and areas of Jalisco, Nayarit and Michoacán).

Extreme (D3) and severe drought conditions (D2) expanded in northwestern and western Mexico during May in response to persistent dry conditions that developed last November. Above normal temperatures in this region aggravated the dry conditions, though reservoir levels remained higher than in the previous year (2006) when a fairly weak monsoon was followed by a very dry period from the fall to spring of 2005-2006. Severe drought (D2) extreme drought (D3) also intensified in Guerrero, Michoacan and Jalisco in response to a very dry November to May period with hot weather in late spring.

Abnormal dry conditions (D0) were observed in Veracruz and moderate drought conditions (D1) expanded in Tabasco y Chiapas during the past month. Severe drought conditions (D2) to moderate drought conditions (D0) peaked in the Yucatan Peninsula in mid May, but late in the month heavy rains begin to reverse the dryness which had been intensifying since late last fall.